

CHAPTER 45-12-04
POWER BOILERS - NEW INSTALLATIONS

Section

45-12-04-01	Requirements
45-12-04-02	Appurtenances - Piping and Tests
45-12-04-03	Exits From Boiler Rooms
45-12-04-04	Boiler Clearances
45-12-04-05	Safety Valve Capacity

45-12-04-01. Requirements.

1. All new boilers, except those exempt by law, to be installed in North Dakota must be reported to the chief boiler inspector by the owner or user and by the installer.
2. After July 1, 1973, power boilers that are not exempt by law may not be installed in this state unless they have been constructed, inspected, and stamped in conformity with the applicable edition of the American Society of Mechanical Engineers Code for power boilers and are approved, registered, and inspected in accordance with the requirements of this article.
3. A boiler having the standard stamping of another state or province of Canada that has adopted a standard of construction equivalent to the standard of North Dakota may be accepted by the chief boiler inspector if the person desiring to install the boiler makes application for the installation and files with the application the manufacturer's data report covering the construction of the boiler.

History: Effective June 1, 1994; amended effective July 1, 2012.

General Authority: NDCC 26.1-22.1-14

Law Implemented: NDCC 26.1-22.1-14

45-12-04-02. Appurtenances - Piping and tests.

1. The inspector shall inspect all boilers and connected appurtenances for their safe operation and all pressure piping connecting them to the appurtenances and all piping up to and including the first stop valve, or the second stop valve when two are required.
2. Any pressure piping to the boiler, such as water column, blowoff valve, feedwater regulator, superheater, economizer, stop valves, etc., which are shipped connected to the boiler as a unit, must be hydrostatically tested with the boiler and witnessed by an inspector.
3. All economizers, whether separately fired or not, and when located within the scope of boiler external piping, must be constructed to section I of the American Society of Mechanical Engineers Code. All

superheaters must be constructed to section I of the American Society of Mechanical Engineers Code.

4. The chief boiler inspector may waive American society of mechanical engineers section I boiler external piping requirements for new and secondhand boilers of less than forty horsepower output if the boiler external piping is mechanically installed (i.e., no welding), the piping does not exceed two-inch [5.08 centimeters] national pipe standard in size, the piping is schedule eighty minimum, and the boiler maximum allowable working pressure does not exceed one hundred fifty pounds per square inch [1034.22 kilopascals] gauge.

History: Effective June 1, 1994; amended effective October 1, 2002; July 1, 2012.

General Authority: NDCC 26.1-22.1-14

Law Implemented: NDCC 26.1-22.1-14

45-12-04-03. Exits from boiler rooms.

1. To lessen the hazard of being trapped within the boiler room, ash pit aisles, or other locations, there must be at least two means of exit as may be considered necessary by the inspector. Each elevation must be provided with at least two means of egress, each to be remotely located from the other.
2. All inspectors shall notify the chief inspector of the owners or users who must provide for these requirements. The chief inspector shall then give written notice to the owner or user that the necessary work must be completed within six months from the date of notification.

History: Effective June 1, 1994.

General Authority: NDCC 26.1-22.1-14

Law Implemented: NDCC 26.1-22.1-14

45-12-04-04. Boiler clearances.

1. All new boiler installations must be designed to allow for normal operation, cleaning, and inspections, and must have at least three feet [.91 meters] of clearance on each side of the boiler with no obstructions and boilers operated in battery may not be installed closer than four feet [1.22 meters] from each other.
2. All boilers must be installed to allow for removal of tubes without removing walls or other structures. The front or rear of any boiler may not be located any nearer than three feet [.91 meters] from any wall or structure.
3. On all boilers equipped with a manhole, at least seven feet [2.1336 meters] of clearance must be maintained from the top of the boiler manhole to the ceiling of the boiler room.

4. Boilers without manholes must have a minimum of at least three feet [.91 meters] from the top of the boiler to the lowest point of the boiler room ceiling.

History: Effective June 1, 1994.

General Authority: NDCC 26.1-22.1-14

Law Implemented: NDCC 26.1-22.1-14

45-12-04-05. Safety valve capacity. The minimum required relieving capacity of safety valves or safety relief valves for all types of boilers may not be less than the maximum designed steaming capacity as determined by the manufacturer and must be based on the capacity of all the fuel burning equipment as limited by other boiler functions.

History: Effective April 1, 1996.

General Authority: NDCC 26.1-22.1-14

Law Implemented: NDCC 26.1-22.1-14